

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: Dog Gone

Agreement #: 30-078975

2. Name of applicant: Department of Natural Resources

3. Address and phone number of applicant and contact person:

Department of Natural Resources
950 Farman Ave N
Enumclaw, WA 98022-9282
360-825-1631
Contact Person: Edward Keeley

4. Date checklist prepared: 12/11/2007

5. Agency requesting checklist: Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):

- a. *Auction Date:* 09/23/2008
b. *Planned contract end date (but may be extended):* 10/31/2009
c. *Phasing:* None

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Timber Sale

- a. *Site preparation:* None
- b. *Regeneration Method:* Regeneration activities shall be completed within two years of the completion of harvest operations. The 40 acre unit will be hand planted with 310 Douglas-fir 1+1 bare root seedlings per acre and 50 western red cedar P+1 bare root seedlings per acre for a total of 360 seedlings per acre.
- c. *Vegetation Management:* Needs will be assessed 5 – 7 years after harvest.
- e. *Thinning:* Needs will be assessed 10 – 15 years after harvest.

Roads: All roads that are part of this proposal will receive periodic road maintenance such as grading, ditch cleanout and vegetation management, during harvest activities. The mainline haul roads adjacent to the harvest area will be used for future forestland management activities such as timber harvesting, recreation, and fire control. The abandonment of roads as part of this proposal will be in accordance to the current forest practice standards, after completion of harvest activities. The roads that will remain open after completion of harvest activities will be maintained as part of a road maintenance plan for the Tahoma Block. The purchaser of the timber sale contract or a designated maintainer will be required to complete road maintenance on those roads used as part of this proposal. Approximately half of the new construction roads will be abandoned to forest practice specifications by the completion of the activity.

Rock Pits and/or Sale: Rock for the construction of the landings and surfacing for the new road construction may come from the following rock pits: Iron Horse Pit located in the SW1/4 NE1/4 of Section 8, Township 14 North, Range 6 East, W.M. and Bob's 24 Road Pit located in the NE1/4 of Section 7, Township 14 North, Range 6 East, W.M.

Other:

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐ 303 (d) – listed water body in WAU: ☐ temp ☐ sediment ☐ completed TMDL (total maximum daily load):

☐ Landscape plan:

☐ Watershed analysis:

☐ Interdisciplinary team (ID Team) report:

☒ Road design plan: included in the Road Plan dated 12/12/2007

☒ Wildlife report: Stand evaluation for Owl and Murrelet habitat, dated 9/11/07 and 11/14/07

☐ Geotechnical report:

☐ Other specialist report(s):

☐ Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):

☒ Rock pit plan: included in the Road Plan dated 12/12/2007

☒ Other:

1) Owl habitat surveys for 1996.

2) Forestry Handbook (1999).

3) State Soil Survey

4) GIS WAU information: Maps and data pertaining to Mass Erosion and Erosion Potential, Hydrologic Maturity and roads per square mile, rain-on-snow zone. This information has been adjusted where more recent and accurate proprietary data exists.

5) DNR Trax System/P&T Special Concerns Report.

6) Endangered Species Act (ESA) 1973.

7) Nisqually River Management Plan.

8) Habitat Conservation Plan (HCP)

9) Dept of Fish And Wildlife, Priority Habitat Species (PHS)

10) Policy for Sustainable Forests

Above referenced documents can be obtained from the South Puget Sound Region office in Enumclaw for review during the SEPA comment period.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. None known

10. List any government approvals or permits that will be needed for your proposal, if known.

☐ HPA ☐ Burning permit ☐ Shoreline permit ☒ Incidental take permit ☒ FPA ☒ Other: Board of Natural Resources Approval

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description:

The Dog Gone Timber Sale is a 40 acre regeneration harvest with legacy trees that is designed to produce revenue to the State Forest Board Transfer Lands Trust while protecting sensitive slopes, habitat and minimizing impacts on the local view shed. This proposal is a lump sum sale located in the Reese Creek WAU in Lewis County.

The stands chosen for this harvest are hydrogically mature 60 to 70 year old second growth timber and are located within a designated Northern Spotted Owl Dispersal Management Area. The primary timber species found within these stands are Douglas-fir, western hemlock, silver fir, red alder and black cottonwood. The proposed harvest unit is located on terrain which is gently rolling.

Sale boundaries were identified in the field and generally follow features such as streams, ridges, benches and roads. The sale will harvest approximately 1,619 MBF of mixed conifer and hardwoods. 325 leave trees were selected and have been marked with a single band of blue paint. Leave trees were selected from the dominant and co-dominant cohorts, for both legacy trees and wildlife trees. Leave trees were predominately scattered, which will retain rooting strength for soil stability, reduce impacts of peak flow and ensure visual corridors are enhanced. Some leave trees are grouped around near a Type 5 stream located in the middle portion of the harvest area. Snags that do not pose a safety hazard will be retained.

Approximately 4,683 feet of optional road construction and 209 feet of optional road reconstruction may be needed in addition to 17,000 feet of pre-haul maintenance to access this proposal. If constructed, 2,754 feet of the optional road construction associated with this proposal will be abandoned at the completion of the sale. Both the Iron Horse and Bob's 24 Road rock pits may be expanded up to 0.25 acres each to facilitate operations associated with this proposal.

Upland species such as deer, elk, black bear and cougar use the proposal area. Beaver, amphibians and cutthroat trout are known to reside and/or use the streams and associated riparian areas. Plants such as salmonberry, devil's club, Vaccinium species, salal, Oregon grape and sword fern are common understory species within the proposal area.

The soils found within the proposed harvest area are classified as insignificant to low mass wasting potential with low to medium erosion potential. The soils within the proposal do not pose any significant environmental concerns when logging or road construction occurs on them. Any operational impacts will be mitigated by strict adherence to the Forest Practice Rules and the procedures of the HCP.

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

The majority of the stand is in the stem exclusion stage of development. The stand is comprised of 60 to 70 year old second growth mixed conifer and hardwood, which is hydrologically mature. Trees fully occupy the site and form a single, main canopy layer. There is little or no understory development. Where understory vegetation exists, there is very little shrub and herb diversity. In the majority of the stand, the shrub and herb layers are completely absent or are dominated by one or two shade-tolerant species, such as sword fern, Oregon grape, oxalis, or salal. The area is designated Northern Spotted Owl Dispersal Habitat.

The proposal is a 40 acre regeneration harvest with at least 8 of the largest, best formed trees per acre left as legacy trees as prescribed in the HCP. Harvest method will be with ground based equipment. Equipment will not operate on slopes 40% and greater. Parts of the proposal area on slopes 40% and greater can be easily accessed from less steep areas by reaching in or pulling line.

Short Term Objectives:

- 1) Create revenue for the Forest Board Transfer (01) trust by harvesting the existing stand.
- 2) Retain legacy and wildlife trees.
- 3) Ensure a continued productive stand by replanting within 2 years of harvest.

Long Term Objectives

- 1) Next rotation at approximately stand age 70, thin to promote stand diversity and increase stand structure to produce higher quality dispersal habit, with the potential to grow into sub-mature habitat.
- 2) Continue to provide wood fiber for local and regional economies.
- 3) Create diverse niche habitats for indigenous species through the creation or retention of key structural components within the stand (snags, down wood, legacy trees, etc.).
- 4) Evaluate planting with western red cedar, in the small openings.
- 6) For regeneration harvest, leave as legacy trees a minimum of 8 trees per acre (according to HCP requirements) from the largest size class in each opening.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		4683	1.5	0
Reconstruction		209		0
Abandonment		2754	0.8	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	30*			

*6 culverts are being installed for seeps near new road construction. 2 Culverts are being installed to upgrade/replace existing culverts in the 24 Road in Type 4 Ns streams. The remaining 22 culverts are for cross drains and ditch relief.

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

- a. Legal description:
- Sec 7 T14N R6E
 - Sec 5 T14N R6E
 - Sec 8 T14N R6E

b. Distance and direction from nearest town (include road names):

The proposal is southwest of Ashford, approximately 7.8 miles by road via Highway 706, Kernahan Road, FS 85 Road, 851 Road and the 1 Road system.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
REESE CREEK	19011	40

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under "SEPA Center" for a broader landscape perspective.)

Name of WAU or sub-basin	Acres	DNR managed acres	Private managed acres	Percent DNR managed land	Percent private managed land	Proposal Acres
Reese Creek	19,011	11,961	7,050	63%	37%	40

The table below reports recent timber harvest activity within the last seven years on Department lands, as well as future planned timber harvests on Department lands. The same chart also reports recent past harvesting on private lands, but no attempt was made to predict future timber harvests on private land. Data for Department harvests was compiled from the Department's state lands viewer.

NAME OF WAU	DNR ACRES EVEN-AGED HARVESTED IN LAST 7 YEARS + SOLD TIMBER SALES NOT HARVESTED YET (WILL BE EVEN AGED HARVESTING)	DNR ACRES UNEVEN-AGED HARVESTED IN LAST 7 YEARS	DNR PLANNED HARVEST ACRES WITHIN NEXT FIVE YEARS	PRIVATE ACRES EVEN-AGED HARVESTED IN LAST 7 YEARS	PRIVATE ACRES UNEVEN-AGED HARVESTED IN LAST 7 YEARS
Reese Creek	1,328	1,888	37 EVEN-AGED 1,315 UNEVEN-AGED	161	0

The Reese Creek WAU is 19,011 acres in size, 37% is in private ownership, and the remaining 63% is managed by the Department of Natural Resources. In the past seven years on private lands (mostly industrial) within the WAU, less than 01% of the land base has had some form of forest practices harvest or road activity. The private industrial lands have been harvested at least once. In the past seven years on the DNR managed lands within the WAU, approximately 27 % of this land base has had some form of forest practices harvest or road activity. The DNR managed lands within the WAU have had permits on approximately 3.8% of the land base per year over the last seven years. In the next five year period the majority of the acres harvested in the WAU on DNR managed lands will come from thinnings designed to improve dispersal habitat.

The DNR road maintenance and abandonment plan (RMAP) for the WAU is on track to have all forest road related fish passage barriers removed or repaired mid 2016. Much of this work will be accomplished over time in conjunction with timber sales currently in the planning process. In addition to the fish blockages, undersized culverts found as part of the planning processes will be replaced.

The implementation of the procedures of the Habitat Conservation Plan (HCP) and compliance with existing forest practice regulations will minimize or prevent any potential impact that this proposal may have on the environment.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☒Rolling, ☐Hilly, ☐Steep Slopes, ☒Mountainous, ☐Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

The Reese Creek WAU is flat or rolling in the portion of the WAU adjacent to the Nisqually River. It abruptly changes to hilly and steep slopes in the higher elevations of Reese Creek WAU. The upper portions of the WAU near the headwaters of Reese Creek contain slopes that exceed 75% although most slopes in this portion of the WAU range between 30% and 50%. The elevation ranges in the Reese Creek WAU from 1600 feet near the Nisqually River to 3,600 feet on the upper ridges of the WAU.

The annual rainfall within the WAU is between 50 and 70 inches, mostly falling between October and June. The temperatures range from a low of 10 degrees Fahrenheit at times in the winter to highs of 90 degrees Fahrenheit or more during the summer. In areas above 2,500 feet, snow normally covers the ground from December through March. The primary timber types are Douglas-fir and western hemlock, although noble fir and silver fir are found in the higher elevations of the WAU. The majority of the private lands in the WAU are in plantations less than 25 years old.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

Although this activity is in the higher elevations of the WAU, the terrain is hilly, not steep. This area is plainer overall and shows little to no sign of slope instability.

b. What is the steepest slope on the site (approximate percent slope)?

Approximately 80% of the proposal area is 40%; however 20% of the proposal area has slopes up to 60% along the old railroad grade and a few pitches.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
0484	V.CINDERY LOAMY SAND	8-30	22	INSIGNIFICANT	LOW
0485	V.CINDERY LOAMY SAND	30-65	17	LOW	MEDIUM
0487	BELLICUM-ROCK OUTCROP-COMPLEX	30-65	1	No Data	No Data

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) Surface indications:

There are no surface indicators of unstable slopes in the harvest area. To the west of the proposed sales area there is evidence of a slope failure. It is in convergent topography with a Type 5 stream that begins at the toe of the slide. The failure area and stream are outside of and separated from the proposal area by a 30 foot buffer.

2) Is there evidence of natural slope failures in the sub-basin(s)?

☐No ☒Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

There are deep-seated landslides within the sub-basin. Evidence of past natural slope failures were found during the analysis of aerial photos and field inspections. Some of the natural slope failures have occurred from channel migration during rain-on-snow events. None of these failures are associated with any timber harvest activities.

- 3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☐ No ☒ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:
Associated management activity:
The slope failures were triggered by increased water flow during peak rain-on-snow events, in conjunction with poor harvest methods, railroad line locations and road construction techniques.
- 4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☒ No ☐ Yes, describe similarities between the conditions and activities on these sites:
- 5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

All potentially unstable slopes have been excluded from this activity. Roads and the proposal boundaries are located to avoid conditions that could result in potential erosion or surface failures on unstable slopes.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: 1.5 Approx. acreage new landings: 1 Fill source: Iron Horse Pit and Bob's 24 Road Pit
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Some minor erosion may occur, however, prudent construction techniques and normal maintenance practices will minimize, if not eliminate, the amount of erosion.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

The impervious surfacing consists of rock applied to the surface of the roads and landings. This amounts to approximately 1.5 percent of the sale area.
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

Road construction will not be permitted between November 1st and May 31st without written approval from the contract administrator. At any time during periods of wet weather conditions the yarding of timber, road construction and hauling will not be permitted if excessive rutting occurs as determined by the contract administrator. Ground based yarding will not be permitted on slopes greater than 40%. Drainage structures will be placed to reduce the velocity and volume of ditch water. The conditions and requirements of the road abandonment plan are intended to minimize the impact of the fine sediments generated from the operation. The road abandonment efforts will consist of the following conditions: constructing non-drivable water bars, keying water bars into ditches, removing cross drain culverts and leaving the trench open, slope trench walls, scatter right of way debris over the road prism and grass seed exposed soils. In addition, all exposed soils within 50 feet of any live stream will be covered with a 4-inch deep layer of straw.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

No emissions are anticipated, other than minor amounts of equipment exhaust and road dust created by truck traffic.
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Does not apply
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None

3. Water

- a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See timber sale map available at DNR region office, or forest practice application base maps.)

a) *Downstream water bodies:*

The proposal lies to the east of one Type 5 stream as described in Earth d.1) above. A second Type 5 stream (HCP Water Typing System) is located in the middle portion of the proposal area. It is a series of ponds with intermittent flow; with no over surface flow or channel connecting the ponds. Both streams flow directly into Reese Creek, which flows into the Nisqually River.

b) *Complete the following riparian & wetland management zone table:*

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Un-named Stream	5	1	30 feet minimum buffer
Un-named Stream	5	1	30 foot Equipment Limitation Zone

- c) *List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.*

The location of the streams within and adjacent to the proposal were determined by field reconnaissance, aerial photos and the DNR's hydro layer. The DNR HCP stream typing system was used to determine stream types, along with resource information gathered from forest practices, the Nisqually Indian Tribe, the Department of Fish and Wildlife and field observations. Refer to timber sale map for locations.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐No ☒Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)

Description (include culverts):

There will be two Type 4 culverts replaced along the 24 Road haul route. The new culverts meet the 100 year flood passage requirements for these streams.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)
☐No ☒Yes, description: Stream diversion may be necessary for culvert replacements on 2 Type 4 streams.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒No ☐Yes, describe location:

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒No ☐Yes, type and volume:

- 7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

Yes. The Reese Creek WAU contains soils with high mass wasting potential and high erosion potential. These soils are generally located on steep slopes, at higher elevations. There is minimal potential for eroded material to impact streams within the sub-basin since all unstable slopes have been excluded from the proposal area.

- 8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?
☐No ☒Yes, describe changes and possible causes:

The Nisqually River in the Reese Creek WAU can be described as being in a constant state of change. This can be attributed, in part to the large areas that it drains. Major changes in the amount of LOD, channel width and location are primarily due to large scale rain-on-snow events and the annual spring run off. Tributary streams also show changes due to major rain-on-snow events.

- 9) Could this proposal affect water quality based on the answers to the questions 1-8 above?
☒No ☐Yes, explain:

- 10) What are the approximate road miles per square mile in the WAU and sub-basin(s)? Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒No ☐Yes, describe:

The Reese Creek WAU contains an average of 4.6 miles of road per square mile. On non-DNR lands the average is 5.7 miles of road per square mile and on the DNR lands the average is 3.9. Approximately 75% of the ditches within the WAU carry water for extended periods of time.

- 11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.
☐No ☒Yes, approximate percent of WAU in significant ROS zone.
Approximate percent of sub-basin(s):

Approximately 54 percent of the WAU is in a significant ROS or snow dominated zone. Approximately 78 percent of the sub-basin is in a significant ROS or snow dominated zone.

- 12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

1. SUB-BASIN NAME	2. TOTAL ROS ACRES (DNR)	3. HYDRO MATURE TARGET ACRES (2/3 of Column 2)	4. CURRENT DNR ACRES IN HYDRO MATURE FOREST	5. ACRES OF HYDRO MATURE FOREST TO BE REMOVED	6. SUPRLUS (+) OR DEFICIT (-) ACRES AFTER ACTIVITY
Reese Creek Sub-basin #6	1874	1249	1408	40	119

- 13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*

☐ No ☒ Yes, describe observations:

Upon site inspection, significant changes to several un-named stream channels in the Reese Creek WAU were found. These include debris dam breaks, debris flows, torrents and channel dimension changes. Generally the damage is caused by debris torrents and slope failures that have occurred during periods of peak flow caused by major rain-on-snow events delivering directly to streams.

- 14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

This proposal is in the same general area as other recent harvesting activities. There is no indication that past, current, or foreseeable future proposals, working in combination with this proposal, will contribute to a water runoff problem in the Reese Creek WAU.

- 15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*

☒ No ☐ Yes, possible impacts:

- 16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

HCP procedure PR-14-040-006, Assessing the Hydrological Maturity Levels, assures that the sub-basins within the rain-on-snow zone will not reach a point where there is risk to contribute to or cause a peak flow problem. This proposal will not significantly affect the amount of hydrologically mature timber in either WAU. There will be an increase in the size of the road network as part of this proposal. However, this should not create any potential impacts related to increase peak flows during rain-on-snow events. The current guidelines for the HCP implementation include prescriptions that address the potential for peak flow impacts. Finally, this proposal includes the maintaining, upgrading, replacing and adding of stream crossings, cross drains and ditch outs on the haul routes. These structures will ensure that ditch water is deposited on the forest floor and not allowed to flow directly into typed waters. Culvert installation in live streams will require water to be diverted to minimize the potential to deliver sediment in the streams. Leave trees will help to minimize soil displacement and surface erosion.

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Does not apply

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Insignificant amounts of motor oil, grease and hydraulic fluids may leak from equipment or be washed off equipment by rainwater. No lubricants will be disposed of on site.

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*

☒ No ☐ Yes, describe:

a) Note protection measures, if any. None needed.

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The location of the culverts (cross drains) will be selected so as to disperse the collected storm water from the ditches onto the forest floor. The frequent spacing of culverts will minimize the distance water flows before being dispersed onto the forest floor. Consequently, no surface or ditch water will flow directly into existing stream channels. Ditch outs will also be used to channel runoff onto the forest floor. No water runoff will be channeled onto exposed soils.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

a) Note protection measures, if any.

The lubricants and petroleum based products used by the machinery will not be disposed of on site. Oil absorbent products will be used during the maintenance of machinery to prevent any spillage of these products from reaching the ground water. Maintenance of machinery and the storage of lubricants and petroleum based products will be conducted at a safe distance from all typed streams.

- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

Good landing location, sound construction techniques utilizing the best management practices, adequate ballast and surfacing along with seasonal restrictions on construction, hauling and yarding will minimize potential surface erosion problems. The

frequent spacing and placement of the culverts with head walls, catch basins and energy dissipaters, along with the use of ditch outs will reduce or control surface, ground and water runoff impacts.

4. Plants

- a. Check or circle types of vegetation found on the site:
- ☒deciduous tree: ☒alder, ☐maple, ☐aspen, ☒cottonwood, ☐western larch, ☐birch, ☐other:
☒evergreen tree: ☒Douglas fir, ☐grand fir, ☒Pacific silver fir, ☐ponderosa pine, ☐lodgepole pine,
☐western hemlock, ☐mountain hemlock, ☐Englemann spruce, ☐Sitka spruce,
☐red cedar, ☐yellow cedar, ☐other:
☒shrubs: ☒huckleberry, ☒salmonberry, ☒salal, ☐other:
☐grass
☐pasture
☐crop or grain
☒wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☒devil's club, ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation:
☐plant communities of concern:
- b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under "SEPA Center.")

The "Schwing" Timber Sale harvested in 2005 lies next to the southeast boundary of the Dog Gone Timber Sale. Timber in this previously harvested sale consists of scattered 60 to 70 year old timber (at a frequency of nine trees per acre) and one year old seedlings (approximately 360 per acre). The rest of the sale is surrounded by a timber stand that is in the same condition as the sale area. There is a wind buffer between the proposed Dog Gone Timber Sale and the proposed Incline Timber Sale.

- 2) Retention tree plan:

There are 325 leave trees marked with a band of blue paint in this sale. They were selected from the dominant and co-dominant cohorts and have been scattered throughout the unit. Some leave trees were clumped to help aid in the protection of the Type 5 stream located in the middle portion of the sale. Trees were selected to leave both legacy and wildlife trees. Snags that do not pose a safety hazard will be retained.

- c. List threatened or endangered plant species known to be on or near the site.

TSU Number	FMU ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The proposal area will be replanted with 310 Douglas-fir seedlings and 50 western red cedar seedlings per acre within two years of harvest activities. In addition, 325 wildlife and green recruitment trees will be left after harvest. These leave trees are clumped and scattered away from the unit boundaries to give the unit a more textured look and create a more visually appealing harvest area.

5. Animal

- a. Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or near the site:
- birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐pigeon, ☐other:
mammals: ☒deer, ☒bear, ☒elk, ☐beaver, ☒other: Cougar
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐talus slopes, ☐caves, ☒cliffs, ☐oak woodlands, ☐balds, ☐mineral springs
- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).

TSU Number	FMU ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

The proposed sale area is in designated Northern Spotted Owl dispersal habitat.

This proposal area falls within the HCP's South Puget Planning Unit which is currently in the interim phase of a long-term habitat conservation strategy. There are two known polygons of murrelet habitat in the vicinity of this unit, one to the northeast and another to the west of the sale unit (see attached map). The occupancy status of the polygons is unknown, but the polygons will be treated as occupied since they have not been surveyed for occupancy according to Pacific Seabird Group protocol. 300 foot buffers are in place to protect this habitat per WAC 222-16-080. Marbled Murrelet timing restrictions will be placed on all portions of the harvest unit and part of the haul route due to the existence of Marbled Murrelet habitat near the sale boundaries. These restrictions will apply to all harvesting, road construction and hauling activities. They will be in place from April 1st to August 31st, lasting from 1 hour before sunrise to 2 hours after sunrise and from 1 hour before sunset to 1 hour after sunset, as per WAC 222-30-060 Timber Harvesting.

Currently the Reese Creek WAU contains 63 percent dispersal habitat. Information from the DNR's GIS system was used to determine the level of dispersal habitat for each WAU. This proposal combined with all other sales to be offered from July 1, 2004 to February 1, 2008 will not reduce the current dispersal levels in each WAU below threshold.

- c. Is the site part of a migration route? If so, explain.

☒ Pacific flyway

☐ Other migration route:

Explain if any boxes checked:

All western Washington is within the Pacific flyway.

- d. Proposed measures to preserve or enhance wildlife, if any:

The leave trees have been selected from the dominant and co-dominant trees within the proposed sale area. Four living wildlife trees per acre have been selected to leave. Wildlife trees have been chosen from those trees which are deformed or damaged. Damaged or deformed trees are defined as having the following characteristics; multiple tops, broken tops, twists, crooks and bends, basal area scars, soft decay and large limbs.

The development of the leave trees and the existing snags over time will promote structural diversity, assure the development of a biological legacy, and provide nesting, foraging and roosting habitat for cavity dwellers known to use the area.

One cliff was noted near the middle of the northern sale boundary. The cliff is approximately 35 feet high and has a small amount of water flow over it. The boundary was located to exclude this from the harvest area by 30 feet to protect this feature.

The proposed unit has a 30 foot equipment limitation zone protecting the stream within the proposal area, locations for stream crossings may be approved by the contract administrator. The 30 foot equipment limitation zone, while protecting the water quality of the streams, will provide shelter and foraging areas for riparian dependent species indigenous to the area.

- 1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.
- | | |
|---|---|
| Species /Habitat: Riparian-Type 5 streams | Protection Measures: 30 foot equipment limitation zone & 30 foot buffer |
| Species /Habitat: Upland | Protection Measures: 325 leave trees |
| Species /Habitat: Cliff | Protection Measures: 30 foot buffer-excluded from the harvest unit |

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Petroleum products used for equipment.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Does not apply

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There may be minimal hazards, such as minor fuel spills, and fires.

- 1) Describe special emergency services that might be required.

The Department of Natural Resources, private and rural fire department suppression crews may be needed in case of wildfire. Emergency medical services may be required for personnel injuries. Hazardous material spills may require Department of Ecology and/or county assistance.

- 2) Proposed measures to reduce or control environmental health hazards, if any:

Compliance with state fire laws and fire equipment will be required on site during the closed fire season. Operations will cease if relative humidity falls below 30 percent.

- b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

- 2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

There will be short-term, low-level and high level noise created by the use of harvesting equipment within the sale area. This type of noise has been historically present in this geographical area. The typical hours of operation will be Monday through Friday from 6:00 a.m. to 5:00 p.m.

- 3) Proposed measures to reduce or control noise impacts, if any:

None

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? (Site includes the complete proposal, e.g. rock pits and access roads.)

Timber Production and Forest Management.

- b. Has the site been used for agriculture? If so, describe.

No

- c. Describe any structures on the site.

None

- d. Will any structures be demolished? If so, what?

No

- e. What is the current zoning classification of the site?

Forest Resource Zone

- f. What is the current comprehensive plan designation of the site?

Timber Production

- g. If applicable, what is the current shoreline master program designation of the site?

Does not apply

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No

- i. Approximately how many people would reside or work in the completed project?

None

- j. Approximately how many people would the completed project displace?

None

- k. Proposed measures to avoid or reduce displacement impacts, if any:

None

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This proposal is located in the Forest Resource Zone of Lewis County. The current proposal is compatible with that designation. The use of harvest planning information, adherence to the DNR Forestry Handbook along with information taken from DNR's GIS system assure that this proposal is compatible with the existing and projected land uses and plans. The DNR Forestry Handbook is on file at the DNR's Regional office in Enumclaw.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply

- c. Proposed measures to reduce or control housing impacts, if any:

Does not apply

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

Does not apply

- b. What views in the immediate vicinity would be altered or obstructed?

- 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☒ No ☐ Yes, viewing location:

- 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*

☐ No ☒ Yes, scenic corridor name: It is not visible from a scenic corridor, but is from a major transportation route. The major transportation route is Highway 706, which is the access to the Nisqually entrance to Mount Rainier National Park. Only a small portion of the sale is visible from this highway.

3) *How will this proposal affect any views described in 1) or 2) above?*

The foreground view will be affected for two to five years, until the brush and understory species grow up. A small portion of the background views from Highway 706 will change from a fully stocked conifer stand to a stand with the majority of timber removed, but with legacy trees within the harvested unit.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

Leave trees, both scattered and clumped will break up the view of the harvest unit. Reduction in size of the harvest unit due to stream, slope stability and cliff buffers will also reduce the total area with an aesthetic impact.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply

- c. What existing off-site sources of light or glare may affect your proposal?

Does not apply

- d. Proposed measures to reduce or control light and glare impacts, if any:

None

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

There are informal recreational activities such as hiking, fishing and hunting in and around the Reese Creek drainage.

- b. Would the proposed project displace any existing recreational uses? If so, describe:

No existing recreational uses would be displaced.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None known, and TRAX was reviewed for documented sites.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None known.

- c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

None.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The Tahoma State Forest is accessed from Highway 7, Highway 706, Kernahan Road, FS 85 Road, 851 Road and the 1 Road system.

- 1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

Traffic from this operation will temporarily increase noise, dust and vehicle density that may result in a decrease in safety. Truck traffic from this individual operation should not increase the need for public maintenance.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No, the nearest public transit is 30 miles away in Eatonville.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Yes, refer to the roads information in A. 11 of this document. See the attached timber sale map.

- 1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

There will not be any increase over the historical norm.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

There will be 10 to 12 round trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 6 am and 5 pm of the operating period.

- g. Proposed measures to reduce or control transportation impacts, if any:

None

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Accidents would need existing emergency service providers. Wildfires would need fire response from DNR and county resources.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: Brett Turner Forester 1 Date: 1/29/2008
Title

Reviewed by: Mark Thibo HET Operations Manager Date: 2/14/2008
Title

Approved by: [Signature] Date: 4/21/08
Randy Acker, South Puget Sound Region Manager